



Week ending October 10, 2008

Countdown to Pad Abort-1 - 196 days



The Crew Module pathfinder was moved with the Crew Module Transportation Fixture (Photo left) and placed on a short stand via critical lift at Langley Research Center's B1244/hangar. Shipment to White Sands Missile Range is expected in December and will be used to demonstrate integrated stacking operations procedures with the Launch Abort System Pathfinder (Photo below right) in preparation for Pad Abort-1.



Six Launch Abort System (LAS) pathfinder adaptor feet were permanently welded, inspected, and attached to the pathfinder LAS structural adapter (Photo right) at Langley Research Center. The adapter will be placed onto the pathfinder LAS break-over fixture and aligned with the tube section "rocket-body" (Photo bottom right) for final assembly.



The Ascent Abort-1 (AA-1) Crew Module boilerplate heat shield dish was moved via critical lift from its storage location at Langley Research Center's B1244 hangar and placed on a tall stand to begin fabrication operations (Photo bottom left). Leveling (laser tracking) the AA-1 heat shield dish began prior to the integration of the heat shield internal stiffening "spider" structure.



The design, fabrication, and assembly of a full sized Orion Crew Module (CM) mockup test article and transport cradle for Communication and Tracking (C&T) testing is complete (Photo top of page 2).

The test article was manufactured at the Johnson Space Center machine shop and includes removable aluminum panels that fasten to an internal structure made of aluminum tubing that will be used for the Crew Module S-band and phased array antenna risk mitigation testing. Tests will be conducted next year at the JSC Electromagnetic Interference/Compatibility Test Facility by the NASA/Lockheed C&T team. Results will support the C&T Preliminary Design Review in mid FY09.

**Communication Tracking System:**

The final assembly, welding, and taping of the Crew Exploration Vehicle Crew Module Antenna Test Mockup is complete (Photo left).

The Landing and Descent team completed the last test in a series involving impact of a test article pitched at 30 degrees onto soil sloped at 20 degrees. As with the previous tests, preliminary results indicate agreement with predicted conditions and will be used in the ongoing occupant protection design convergence efforts for the Orion land landing system.

Communications and Public Outreach

Larry Price, Orion Deputy Program Manager for Lockheed Martin, conducted an interview with Frank Moring of *Aviation Week* as a follow up to the ATK media outreach event in conjunction with a solar array deployment technical review conducted in Goleta, CA. Approximately 30 guests representing the media, local city government and the California Space Coalition attended. The event resulted in national media coverage including articles in *Space News*, *Aviation Week*, *The Santa Barbara News-Press*, *The Santa Barbara Daily Sound* and broadcast coverage on the local ABC and Univision stations. The story in *Aviation Week* is scheduled to publish on Monday, Oct. 20.

<http://www.thedailysound.com/2008/10/atk-unveils-future-aerospace-solar.html>

http://www.space.com/spacenews/spacenews_briefs.html

<http://biz.yahoo.com/prnews/081009/aqth075.html?.v=66>

The Operations & Checkout (O&C) Facility construction progress briefing #18 to Space Florida is complete. The O&C also hosted the NASA Advisory Council as part of their tour at Kennedy Space Center.

Upcoming Milestones

Orion System Baseline Review	October 24 & 25 at Johnson Space Center
Exploration Systems Mission Directorate Quarterly Review	November 5-7 at Kennedy Space Center
Abort Motor ST-1 static firing	November 24 at Alliance Technologies (ATK)-Utah
